Robert Nunes

11/19/02 10:42 AM

To: Christopher Stitt/R2/USEPA/US@EPA
cc: charles_merckel@fws.gov
Subject: Re: Methylmercury/Total Mercury at Onondaga Lake - Lake Bottom

Chris - Mike thinks that the K studied data is being discounted relative to the other studies and he is concerned about the effects of the In-Lake Oxygenation Demonstration on methylation of the lake bottom sediments due to oxidation of sulfides to sulfates. TAMS has reviewed the exposures under the HHRA and even with a higher methyl Hg/tot Hg ratio the change in risk levels is not significant. However, Mike is concerned about the precedent we may be setting if we use 1%. We will discuss further during the meetings later this week.

Bob
Christopher Stitt

Christopher Stitt

11/18/02 08:23 AM

To: Robert Nunes/R2/USEPA/US, nunes.robert@epa.gov
cc: charles_merckel@fws.gov
Subject: Re: Methylmercury/Total Mercury at Onondaga Lake - Lake Bottom

Bob -

I don't mean to belabor (sp.?) this,and I'm speaking only to the eco.-end of things, but 1)K.'s study was, I thought, only one of the studies consulted, 2) the lake-specific data came in lower than 10%, and 3) in a BERA it is not the intent to be as conservative as possible, but a little more 'real world.' I'm definitely not trying to disagree with Mike, just protect the BERA's strength of assumptions.

- Chris

Robert Nunes

11/15/02 04:12 PM

To: Christopher Stitt/R2/USEPA/US@EPA
cc: charles_merckel@fws.gov
Subject: Re: Methylmercury/Total Mercury at Onondaga Lake - Lake Bottom

Chris - I do not disagree with your remarks below, but Mike also pointed out that a 1-10% ratio was observed in the Krabbenhoft study so a 10% ratio is not unreasonable and would be a sufficiently conservative estimate.

Bob
Christopher Stitt/R2/USEPA/US@EPA

Christopher Stitt/R2/USEPA/US @EPA

11/15/02 03:45 PM

To: Robert Nunes/R2/USEPA/US@EPA, Robert Nunes/R2/USEPA/US@EPA
cc: charles_merckel@fws.gov
Subject: Re: Methylmercury/Total Mercury at Onondaga Lake - Lake Bottom

Bob -

I realize that Mike's discussion and comments are directed at the HHRA and defer to his expertise in this area. However, interms of anything that might reflect on the BERA and/or use in ecological risk assessment, use of assumptions such as 100% of detected mercury exists as methylymercury is completely indefensible. (I'm not sure that it is even physically possible in the environment for such a condition to exist.) Additionally, I would have trouble in the BERA of choosing an arbitrary safety factor (one order of magnitude) to apply to a parameter that is already supported by site-specific studies (granted not a statistically sound quantity), is supported by literature from the scientific community, and has already been discussed by the scientific/management team and accepted with acknowledgement of the inherent uncertainties. I want to go over this more with some other people and then again with you, if so required. Keep me informed.

- Chris